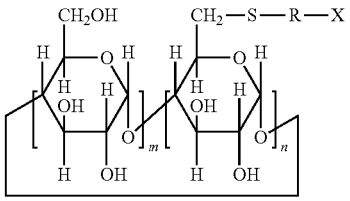
What is claimed is:

1. A 6-mercapto-cyclodextrin derivative having the general formula I

Formula I



wherein m is 0-7 and n is 1-8 and m+n=7 or 8;

R is (C_{1-6})alkylene, optionally substituted with 1-3 OH groups, or $(CH_2)_o$-phenylene-$(CH_2)_p$;

o and p are independently 0-4;

X is COOH, $CONHR_1$, $NHCOR_2$, SO_2OH, $PO(OH)_2$, $O(CH_2—CH_2—O)_q—H$, OH or tetrazol-5-yl;

R_1 is H or (C_{1-3})alkyl;

R_2 is carboxyphenyl;

q is 1-3;

or pharmaceutically acceptable salts thereof; with the exclusion of

6-per-deoxy-6-per-(2-hydroxyethylthio)-β-cyclodextrin;

6-mono-deoxy-6-mono-(2-hydroxyethylthio)-β-cyclodextrin;

6-per-deoxy-6-per-(2-hydroxyethylthio)-γ-cyclodextrin;

6-per-deoxy-6-per-(carboxymethylthio)-β-cyclodextrin;

6-mono-deoxy-6-mono-(carboxymethylthio)-β-cyclodextrin;

6A,6B-dideoxy-6A,6B-bis((o-carboxyphenyl)thio)-β-cyclodextrin;

6A,6B-dideoxy-6A,6B-bis(carboxymethylthiol)-β-cyclodextrin and 6-per-deoxy-6-per-(2,3-dihydroxypropylthio)-β-cyclodextrin.

2. The 6-mercapto-cyclodextrin derivative according to claim **1**, wherein R, m and n are defined as in claim **1** and X is COOH or SO_2OH; or a pharmaceutically acceptable salt thereof.

3. The 6-mercapto-cyclodextrin derivative according to claim **1**, wherein m is 0; n is 8; R is (C_{1-6})alkylene or $(CH_2)_o$-phenylene-$(CH_2)_p$; o and p are independently 0-4; and X is COOH or SO_2OH; or a pharmaceutically acceptable salt thereof.

4. A 6-mercapto-cyclodextrin derivative according to claim **1** selected from the group consisting of:

6-per-deoxy-6-per-(2-carboxyethyl)thio-γ-cyclodextrin;

6-per-deoxy-6-per-(3-carboxypropyl)thio-γ-cyclodextrin;

6-per-deoxy-6-per-(4-carboxyphenyl)thio-γ-cyclodextrin;

6-per-deoxy-6-per-(4-carboxyphenylmethyl)thio-γ-cyclodextrin;

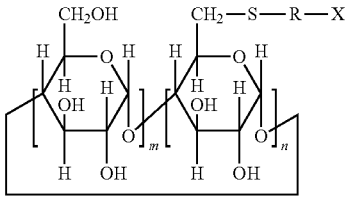
6-per-deoxy-6-per-(2-carboxypropyl)thio-γ-cyclodextrin; and

6-per-deoxy-6-per-(2-sulfoethyl)thio-γ-cyclodextrin;

or a pharmaceutically acceptable salt thereof.

5. A pharmaceutical composition comprising a 6-mercapto-cyclodextrin derivative having the general formula I

Formula I



wherein m is 0-7 and n is 1-8 and m+n=7 or 8;

R is (C_{1-6})alkylene, optionally substituted with 1-3 OH groups, or $(CH_2)_o$-phenylene-$(CH_2)_p$;

o and p are independently 0-4;

X is COOH, $CONHR_1$, $NHCOR_2$, SO_2OH, $PO(OH)_2$, $O(CH_2—CH_2—O)_q—H$, OH or tetrazol-5-yl;

R_1 is H or (C_{1-3})alkyl;

R_2 is carboxyphenyl;

q is 1-3;

or a pharmaceutically acceptable salt thereof, with the exclusion of

6-per-deoxy-6-per-(2-hydroxyethylthio)-β-cyclodextrin;

6-mono-deoxy-6-mono-(2-hydroxyethylthio)-β-cyclodextrin;

6-per-deoxy-6-per-(2-hydroxyethylthio)-γ-cyclodextrin;

6-per-deoxy-6-per-(carboxymethylthio)-β-cyclodextrin;

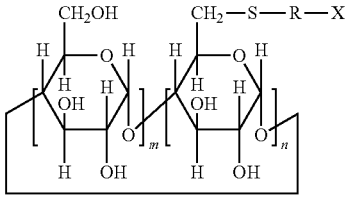
6-mono-deoxy-6-mono-(carboxymethylthio)-β-cyclodextrin;

6A,6B-dideoxy-6A,6B-bis((o-carboxyphenyl)thio)-β-cyclodextrin;

6A,6B-dideoxy-6A,6B-bis(carboxymethylthiol)-β-cyclodextrin and 6-per-deoxy-6-per-(2,3-dihydroxypropylthio)-β-cyclodextrin, in admixture with pharmaceutically acceptable auxilliaries.

6. A kit for providing neuromuscular block and its reversal comprising (a) a neuromuscular blocking agent, and (b) a 6-mercapto-cyclodextrin derivative according to the general formula I

Formula I



wherein m is 0-7 and n is 1-8 and m+n=7 or 8;

R is (C_{1-6})alkylene, optionally substituted with 1-3 OH groups, or $(CH_2)_o$-phenylene-$(CH_2)_p$;

o and p are independently 0-4;

X is COOH, $CONHR_1$, $NHCOR_2$, SO_2OH, $PO(OH)_2$, $O(CH_2—CH_2—O)_q—H$, OH or tetrazol-5-yl;

R_1 is H or (C_{1-3})alkyl;

R_2 is carboxyphenyl;

q is 1-3;

or a pharmaceutically acceptable salt thereof.

7. The kit according to claim **6**, wherein the neuromuscular blocking agent is selected from the group consisting of rocuronium, vecuronium, pancuronium, rapacuronium, mivacurium, (cis)atracurium, tubocurarine and suxamethonium.